Supporting Information

Synthesis of SnO$_2$ pillared carbon using long chain alkylamine grafted graphene oxide: An efficient anode material for Lithium ion batteries.

M. Jeevan Kumar Reddy, Sung Hun Ryu and A. M. Shanmugharaj*
Department of Chemical Engineering, Kyung Hee University,
Yongin-si, Gyeonggi-do 446-701, Republic of Korea
(shanmughar@gmail.com)

Fig. S1 FT-IR spectra of GO and SnO$_2$ pillared carbon

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Fig. S2 XPS survey scan results of GO and SnO$_2$ pillared carbon (a) and high resolution C1s (b) and O1s spectra (c) of GO
Fig. S3 FE-SEM images of GO and SnO$_2$ pillared carbon
Fig. S4 TEM images of pristine GO and lattice images of SnO$_2$ crystals
Fig. S5 Raman spectroscopic results of GO and SnO$_2$ pillared carbon at selected ranges.
Fig. S6 BET N\textsubscript{2} adsorption-desorption curves of GO and SnO\textsubscript{2} pillared carbons
Fig. S7 Electrochemical charge-discharge profile for 1\textsuperscript{st} cycle of nano-SnO\textsubscript{2} based electrodes.
Fig. S8 (a) Variation of coulombic efficiency with cycle number of GO and SnO$_2$ pillared carbon (b) Possible mechanism of lithium-ion intercalation and deintercalation process in SnO$_2$ pillared carbon
Fig. S9 Cyclic performance of GO, SnO$_2$ pillared carbon (SnO$_2$-GNS-6; SnO$_2$-GNS-12; SnO$_2$-GNS-18) and nano-SnO$_2$ based electrodes
Fig. S10 Cyclic voltammetry results of representative SnO$_2$-GNs-6

Fig. S11 Model used to calculate various resistance values using EIS data.